

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/834,596
Applicant : Watanabe, *et al.*
Filed : August 13, 2001
TC/A.AU. : 1623
Examiner : Howard V. Owens Jr.

Confirmation No.: 4260

Docket No. : 08841.105037 PHAR 2020
Customer No. : 20786
Title : 2-' or 3'-Hydroxymethyl Substituted Nucleoside Derivatives for Treatment of Hepatitis Virus Infections

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Transmittal of Supplemental Information Disclosure Statement

Sir:

The citation of information on the attached Form PTO-1449, "List of Art Cited by Applicant" is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. Copies of all listed references are enclosed. The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

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Respectfully submitted,

Madeline I. Johnston
Reg. No. 36,174

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Office: (404)572-4600/ Fax: 404-572-5145

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Sheet	1	of	7												

3372258_3

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
		Number	Kind Code (if known)			
	AA	3,480,613		Walton <i>et al.</i>	11-25-1969	
	AB	5,977,061		Holy <i>et al.</i>	11-02-1999	
	AC	6,340,690	B1	Bachand <i>et al.</i> (Idenix Pharm.)	01-22-2002	
	AD	6,395,716	B1	Gosselin <i>et al.</i> (Idenix Pharm.)	05-28-2002	
	AE	6,444,652	B1	Gosselin <i>et al.</i>	09-03-2002	
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	AG	2002/0055483	A1	Watanabe <i>et al.</i>	05-09-2002	
	AH	2002/0147160	A1	Bhat <i>et al.</i>	10-10-2002	
	AI	2003/0008841	A1	Devos <i>et al.</i>	01-09-2003	
	AJ	2003/0028013	A1	Wang <i>et al.</i>	02-06-2003	
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	AN	FR	1,521,076	✓	Merck & Co. Inc.	04-12-1968	
	AO	FR	1,581,628	✓	Merck & Co. Inc.	09-19-1969	
	AP	FR	2,662,165	✓	Univ Pierre et Marie Curie, Paris	11-22-1991	
	AQ	GB	1,163,103	A ✓	Merck & Co. Inc.	09-04-1969	
	AR	GB	1,209,654	A ✓	Merck & Co. Inc.	10-21-1970	
	AS	JP	63-215694	✓	Yamasa Shoyu Co. Ltd.	09-08-1988	
	AT	JP	06-228186	✓	Yamasa Shoyu Co. Ltd.	08-16-1994	
	AU	WO	98/16184	✓	ICN Pharmaceuticals Inc.	04-23-1998	
	AV	WO	99/43691	✓	Emory U./Georgia Res. Found.	09-02-1999	

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3372258_3

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		Office ³	Number	Kind Code ² (if known)				
	BA	WO	00/09531 ✓	A2	Novirio (Idenix Pharmaceuticals)	02-24-2000		
	BB	WO	01/16671 ✓	A1	Novirio (Idenix Pharmaceuticals)	03-08-2001		
	BC	WO	01/32153 ✓	A2	Biochem Pharma, Inc.	05-10-2001		
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	BG	WO	01/90121 ✓	A2	Novirio (Idenix); Univ...Cagliari	11-29-2001		
	BH	WO	01/91737 ✓	A2	Novirio (Idenix Pharmaceuticals)	12-06-2001		
	BI	WO	01/96353 ✓	A2	Novirio (Idenix); CNRC	12-20-2001		
	BJ	WO	02/03997 ✓	A1	ICN Pharmaceuticals Inc.	01-17-2002		
	BK	WO	02/18404 ✓	A2	F. Hoffmann-La Roche AG	03-07-2002		
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	BN	WO	02/057287 ✓	A2	Merck & Co. Inc.; Isis Pharm.	07-25-2002		
	BO	WO	02/057425 ✓	A2	Merck & Co. Inc.; Isis Pharm.	07-25-2002		
	BP	WO	02/070533 ✓	A2	Pharmasset Ltd.	09-12-2002		
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	BT	WO	03/026675	A1	Novirio (Idenix Pharmaceuticals)	04-03-2003		
	BU	WO	03/051899	A1	Ribapharm Inc.	06-26-2003		
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	BX	WO	03/062255	A2	Ribapharm Inc.	07-31-2003		
	BY	WO	03/062256	A1	Ribapharm Inc.	07-31-2003		
	BZ	WO	03/062257	A1	Ribapharm Inc.	07-31-2003		

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3372258 3

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		Office ³	Number	Kind Code ² (if known)				
	CA	WO	03/063771	A2	Pharmasset Ltd.	08-07-2003		
	CB	WO	03/068162	A2	Pharmasset Ltd.	08-21-2003		
	CC	WO	03/072757	A2	Biota Inc.	09-04-2003		
	CD	WO	03/093290	A2	Genelabs Technologies Inc.	11-13-2003		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	CE	ALTMANN, K.H., <i>et al.</i> , "The Synthesis of 1'-methyl carbocyclic thymidine and its effect on nucleic acid duplex stability", <i>Synlett</i> , Thieme Verlag, Stuttgart, De, October 1994 , 10, 853-855	
	CF	BAGINSKY, S.G. <i>et al.</i> , "Mechanism of action of a pestivirus antiviral compound," <i>Proc. Nat. Acad. Sci. (USA)</i> 2000 , 97(14), 7981-7986.	
	CG	BEIGELMAN, L.N., <i>et al.</i> , "Dimerization during the acetolysis of 3-O-acetyl-t-O-benzoyl-1,2-O-isopropylidene-3-C-methyl-α-D-ribofuranose. synthesis of 3'-C-methylnucleosides with the β-D-ribo- and α-D-arabino configurations", <i>Carbohydrate Research</i> , 1988 , 181, 77-88.	
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4

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	DA	FARKAS, J., "Nucleic acids components and their analogues. LXXIX. Synthesis of methyl 1-deoxy-D-psicofuranosides substituted at C(1) with halo atoms or a mercapto group," <i>Collect. Czech. Chem. Commun.</i> 1966 , <i>31</i> , 1535-1543.	
	DB	FEDEROV, I.I., <i>et al.</i> , "3'-C-branched 2'-deoxy-5-methyluridines: Synthesis, enzyme inhibition, and antiviral properties," <i>J. Med. Chem.</i> , 1992 , <i>35</i> , 4567-4575.	
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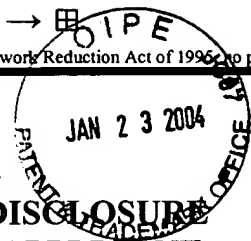
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	EA	KAWANA, M., <i>et al.</i> , "The deoxygenation of tosylated adenosine derivatives with Grignard reagents," <i>Nucleic Acids Symp. Ser.</i> , 1986 , 17, 37-40.		
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	ED	MARTIN, X., <i>et al.</i> , "Intramolecular hydrogen bonding in primary hydroxyl of thymine 1-(1-deoxy-β-D-psicofuranosyl) nucleoside," <i>Tetrahedron</i> , 1994 , 50, 6689-6694.		
	EE	MATSUDA, A., <i>et al.</i> , "Radical deoxygenation of <i>tert</i> -alcohols in 2-branched-chain sugar pyrimidine nucleosides : synthesis and antileukemic activity of 2'-deoxy-2'(S)-methylcytidine," <i>Chem. Pharm. Bull.</i> , 1987 , 35, 3967-3970.		
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	EG	MATSUDA, A., <i>et al.</i> , "Nucleosides and Nucleotides. 104. Radical and palladium-catalyzed deoxygenation of the allylic alcohol systems in the sugar moiety of pyrimidine nucleosides," <i>Nucleosides & Nucleotides</i> , 1992 , 11(No. 2/4), 197-226.		
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	EI	MIKHAILOV, S.N., <i>et al.</i> , "Synthesis and properties of 3'-C-methylnucleosides and their phosphoric esters," <i>Carbohydrate Research</i> , 1983 , 124, 75-96.		
	EJ	MIKHAILOV, S.N., <i>et al.</i> , "Hydrolysis of 2'- and 3'-C-methyluridine 2',3'-cyclid monophosphates and interconversion and dephosphorylation of the resulting 2'- and 3'-monophosphates: comparison with the reactions of uridine monophosphates," <i>J. Org. Chem.</i> , 1992 , 57, 4122-4126.		
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Application Number	09/834,596
Filing Date	April 13, 2001
First Named Inventor	Watanabe <i>et al.</i>
Group Art Unit	1623
Examiner Name	Howard V. Owens, Jr.
Attorney Docket Number	08841.105037 PHAR 2020

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	FA	OIVANEN, M., <i>et al.</i> , "Additional evidence for the exceptional mechanism of the acid-catalysed hydrolysis of 4-oxypyrimidine nucleosides : hydrolysis of 1-(1-alkoxyalkyl)uracils. Seconucleosides. 3'-C-alkyl nucleosides and nucleosides 3',5'-cyclic monophosphates," <i>J. Chem. Soc. Perkin Trans.</i> , 1994 , 2, 309-314.	
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	FD	ROSENTHAL, A., <i>et al.</i> , "Branched-chain sugar nucleosides. Synthesis of 3'-C-ethyl (and 3'-C-butyl)uridine," <i>Carbohydrate Research</i> , 1980 , 79, 235-242.	
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